NAME _____ DATE _____ PERIOD _____

8-1 Practice

Angles of Polygons

Find the sum of the measures of the interior angles of each convex polygon.

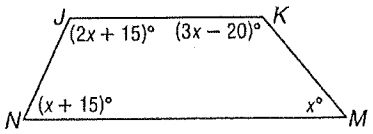
1. 11-gon **2.** 14-gon **3.** 17-gon

The measure of an interior angle of a regular polygon is given. Find the number of sides in each polygon.

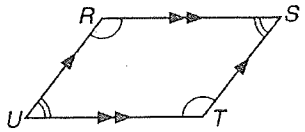
4. 144 **5.** 156 **6.** 160

Find the measure of each interior angle using the given information.

7.



8. quadrilateral $RSTU$ with $m\angle R = 6x - 4$, $m\angle S = 2x + 8$



Find the measures of an interior angle and an exterior angle for each regular polygon. Round to the nearest tenth if necessary.

9. 16-gon **10.** 24-gon **11.** 30-gon

Find the measures of an interior angle and an exterior angle given the number of sides of each regular polygon. Round to the nearest tenth if necessary.

12. 14 **13.** 22 **14.** 40

15. CRYSTALLOGRAPHY Crystals are classified according to seven crystal systems. The basis of the classification is the shapes of the faces of the crystal. Turquoise belongs to the triclinic system. Each of the six faces of turquoise is in the shape of a parallelogram. Find the sum of the measures of the interior angles of one such face.